

## ABSTRACT

### METHOD FOR TREATING PULMONARY DISEASE STATES IN MAMMALS BY ALTERING INDIGENOUS *IN VIVO* LEVELS OF NITRIC OXIDE

The present invention pertains to a method for treating a pulmonary disease state in mammals by altering indigenous *in vivo* levels of nitric oxide in mammalian cells. The method comprises contacting the mammalian cells with a therapeutically effective amount of a nitric oxide mediator selected from the group consisting of pyruvates, pyruvate precursors,  $\alpha$ -keto acids having four or more carbon atoms, precursors of  $\alpha$ -keto acids having four or more carbon atoms, and the salts thereof. The method further comprises contacting the mammalian cells with a therapeutic agent and a nitric oxide source selected from the group consisting of nitric oxide, nitric oxide precursors, and nitric oxide stimulators. In another embodiment, the method comprises treating a pulmonary disease state in mammals by protecting indigenous *in vivo* levels of nitric oxide in mammalian cells during ozone inhalation by contacting the mammalian cells with a therapeutically effective amount of a nitric oxide mediator.